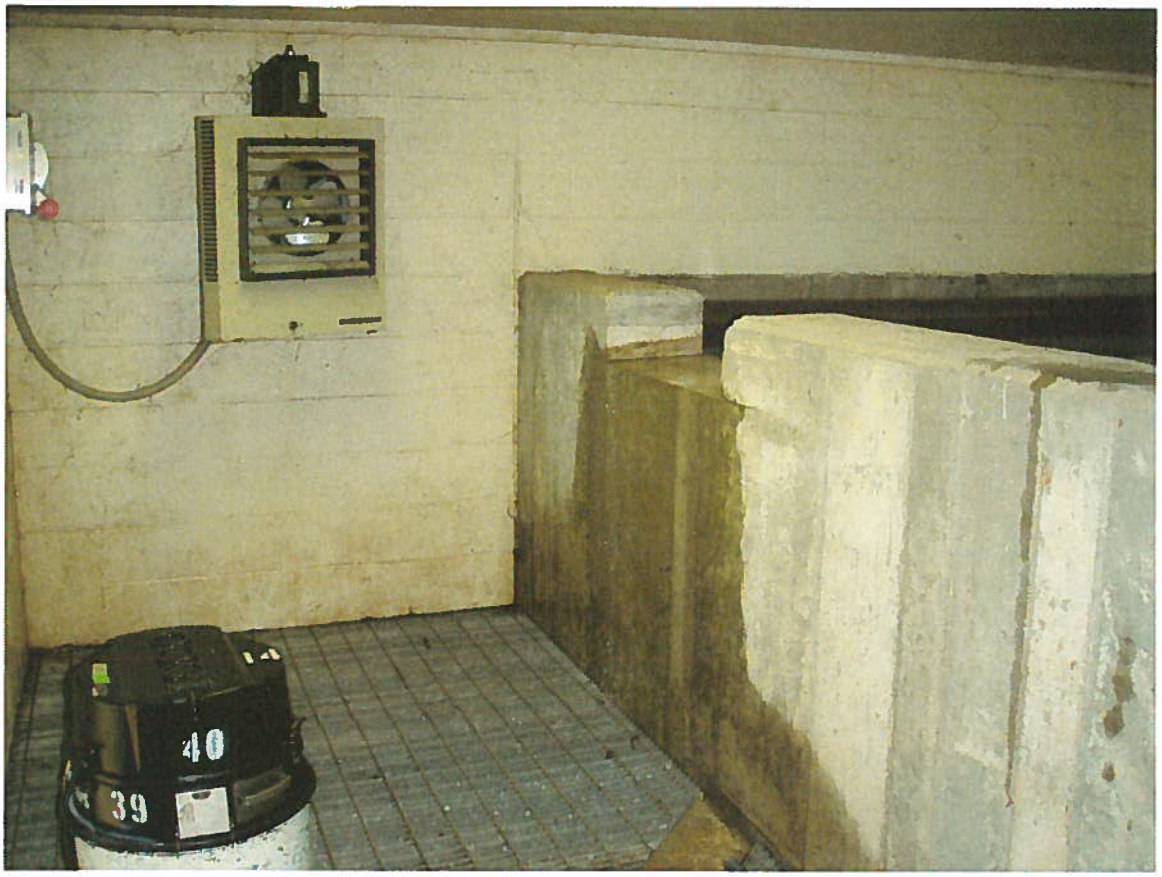
ROCKAWAY BEACH, MO PHOTO LOG
9/13/2007



ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 1 This photo was taken inside the sand filter building. The water flowing through the wall opening didn't go through the filter into the ultraviolet light disinfection channel. This is a bypass.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 2 This photo was taken inside the sand filter building. Visible are three of the four sand filter basins used to remove solids before the ultraviolet light disinfection channel. The sand filters are not in use in this photo.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

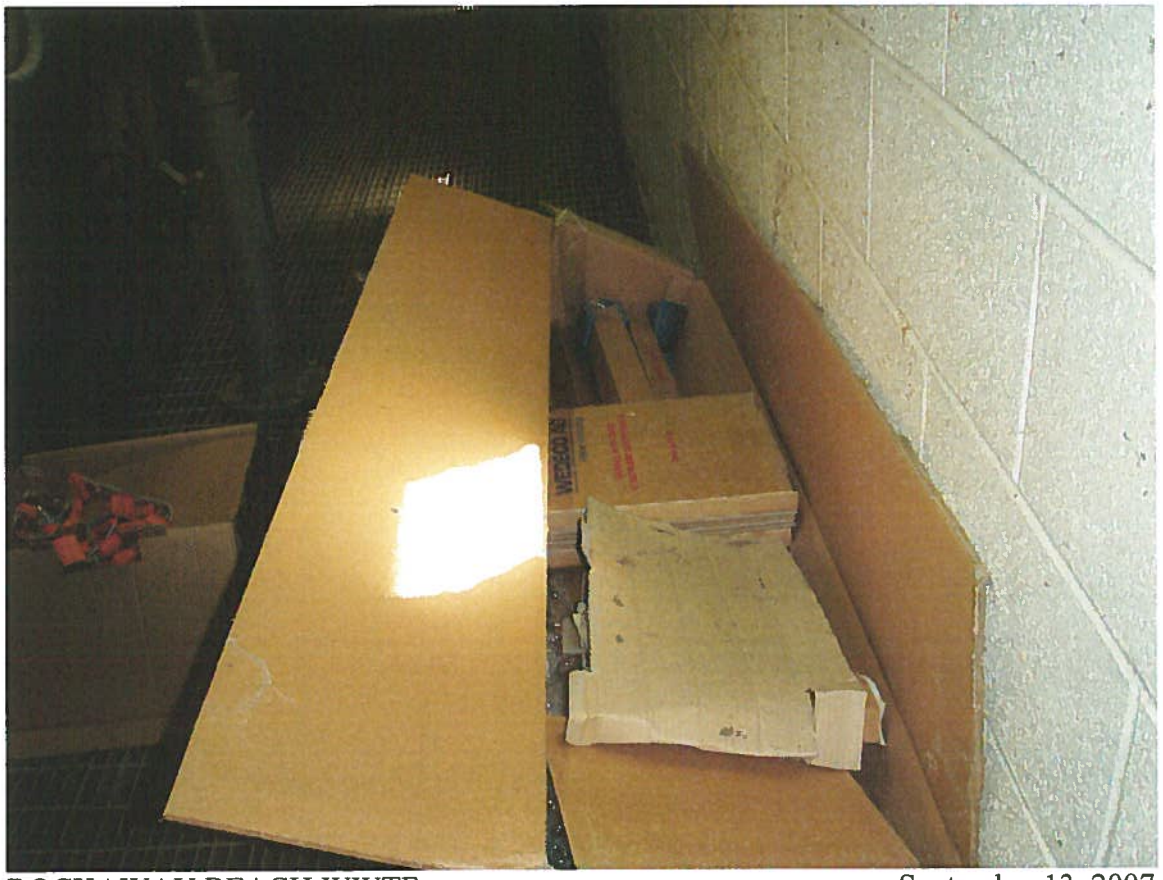
Photo no. 3 This photo was taken inside the sand filter building. These circuit boards were said to be the discards when new circuit boards were installed in the ultraviolet light system. According to the facility operator, the circuit boards are not repairable.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 4 This photo not used.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 5 This photo was not used.



ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 6 This photo was taken inside the sand filter building. This box contained ultraviolet light bulbs that, according to the plant operator, had been replaced by new ones. It would seem appropriate to dispose of the bulbs or to mark the box with the contents and their operational status.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

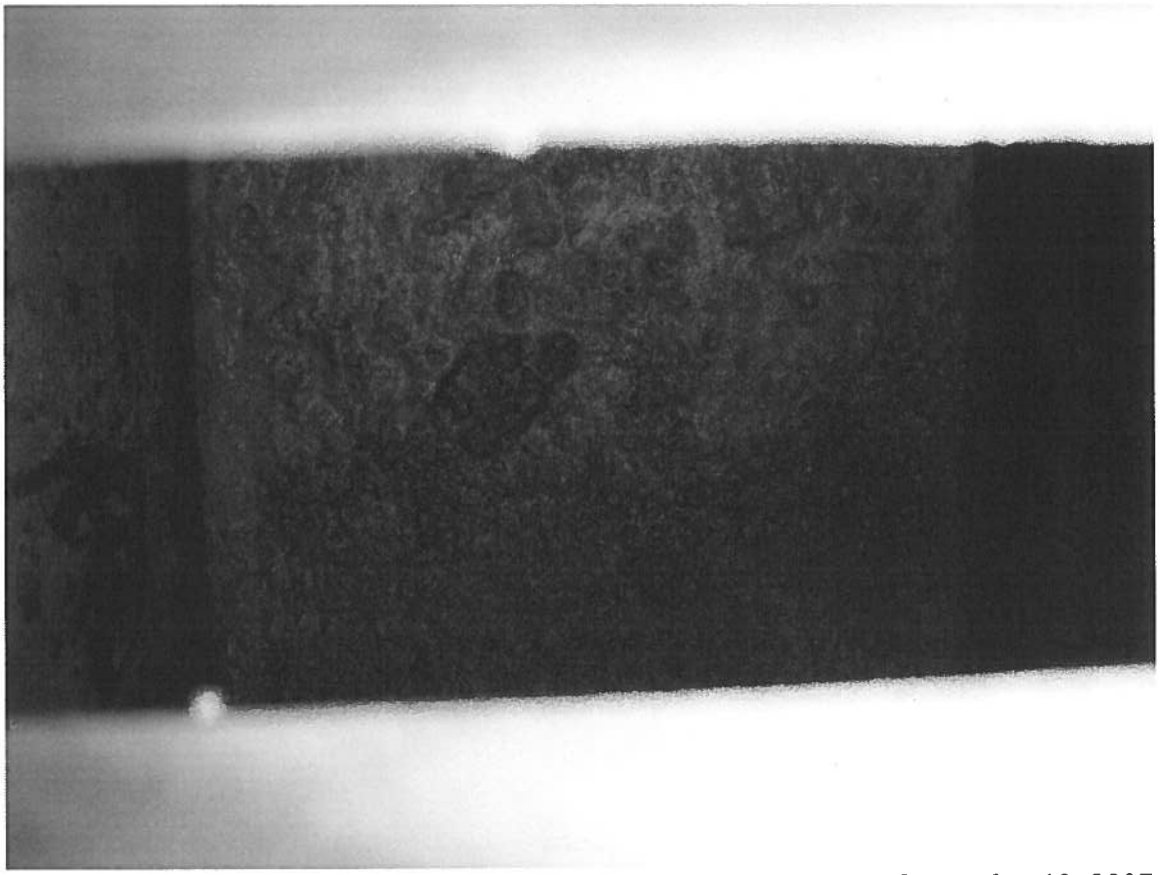
Photo no. 7 This photo was not used.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 7 This photo was taken inside the sand filter building. This box contained ultraviolet light connectors that were remaining after the light and circuit boards were replaced.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 9 This photo was taken on the east outside the sand filter building. This photo was taken looking down at the ultraviolet light banks. The lights are submerged in water. The number of bulbs lit cannot be determined by eye.



ROCKAWAY BEACH WWTF
Rockaway Beach, MO.

September 13, 2007

Photo no. 10 This photo was not used.

ROCKAWAY BEACH WWTF
Rockaway Beach, MO.

September 13, 2007

Photo no. 11 This photo was taken looking into the southeast aeration tank. The piping to the left side is connected to the motive pump which recirculates the tank liquid. The pipe at the right is an air line which feeds air into the liquid as the liquid is expelled from the nozzles. A similar arrangement is located at quarter points in the tank. This tank has not been used for about three years which has allowed vegetation to grow in the bottom supported by sludge left behind when the tank was drained.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

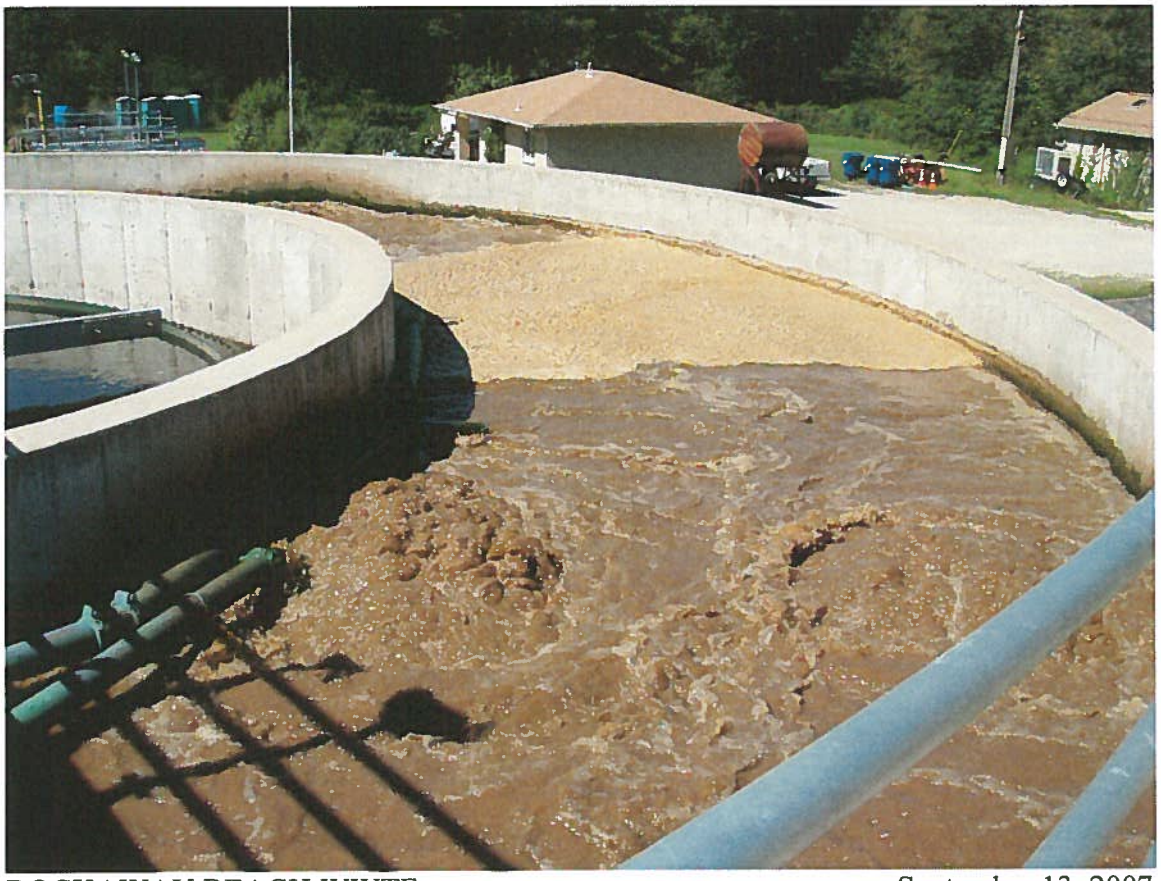
Photo no. 12 This photo was taken looking at the clarifier surface skimmer of the new clarifier not in use.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 13 This photo was taken looking northwest from the influent headworks located between the two aeration tanks. The photo shows the anoxic basins. The building in the upper left of the photo is the laboratory/office. The silver pipe at the top of the photo carries material from the mechanical bar screen to a container on the ground.

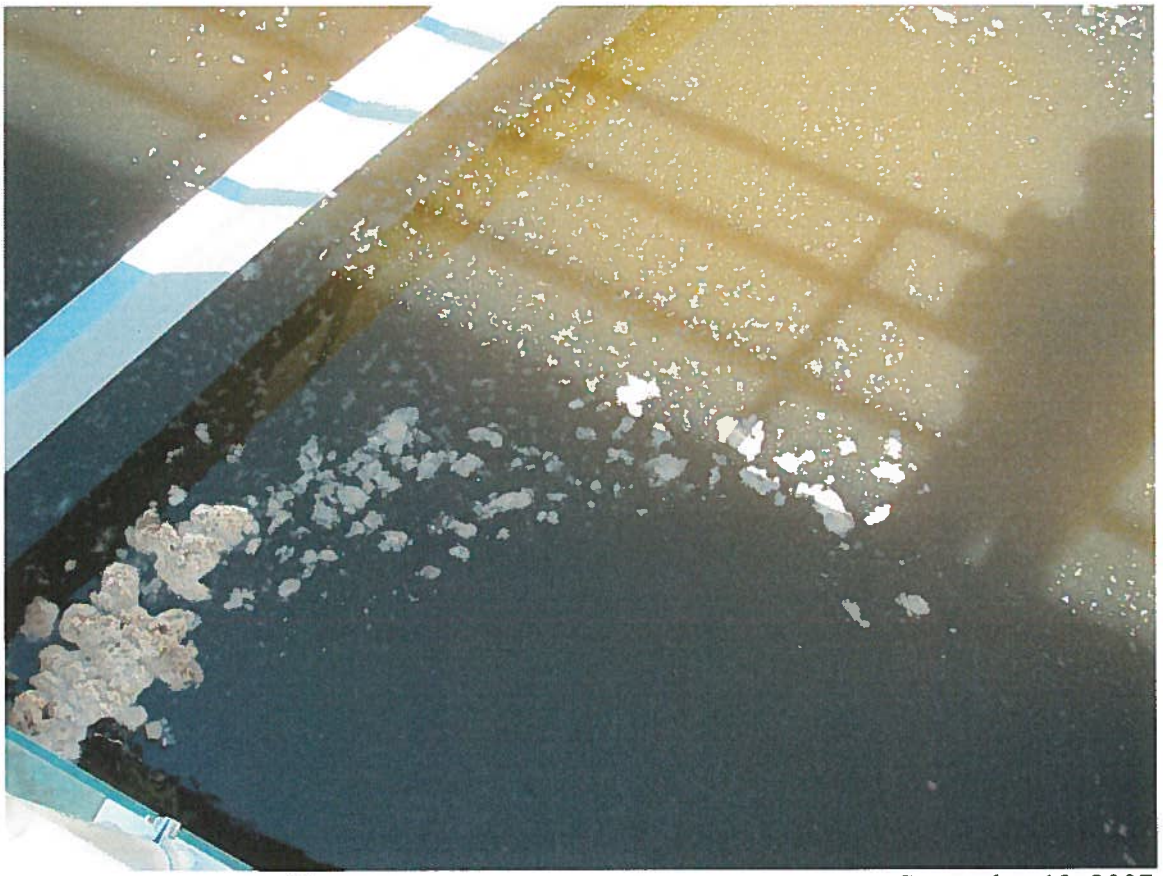
ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 14 This photo was taken looking northwest from the influent headworks located between the two aeration tanks. The photo shows the upper end of the mechanical bar screen. The pipe to carry the screenings to a container on the ground is located at the right of the unit.



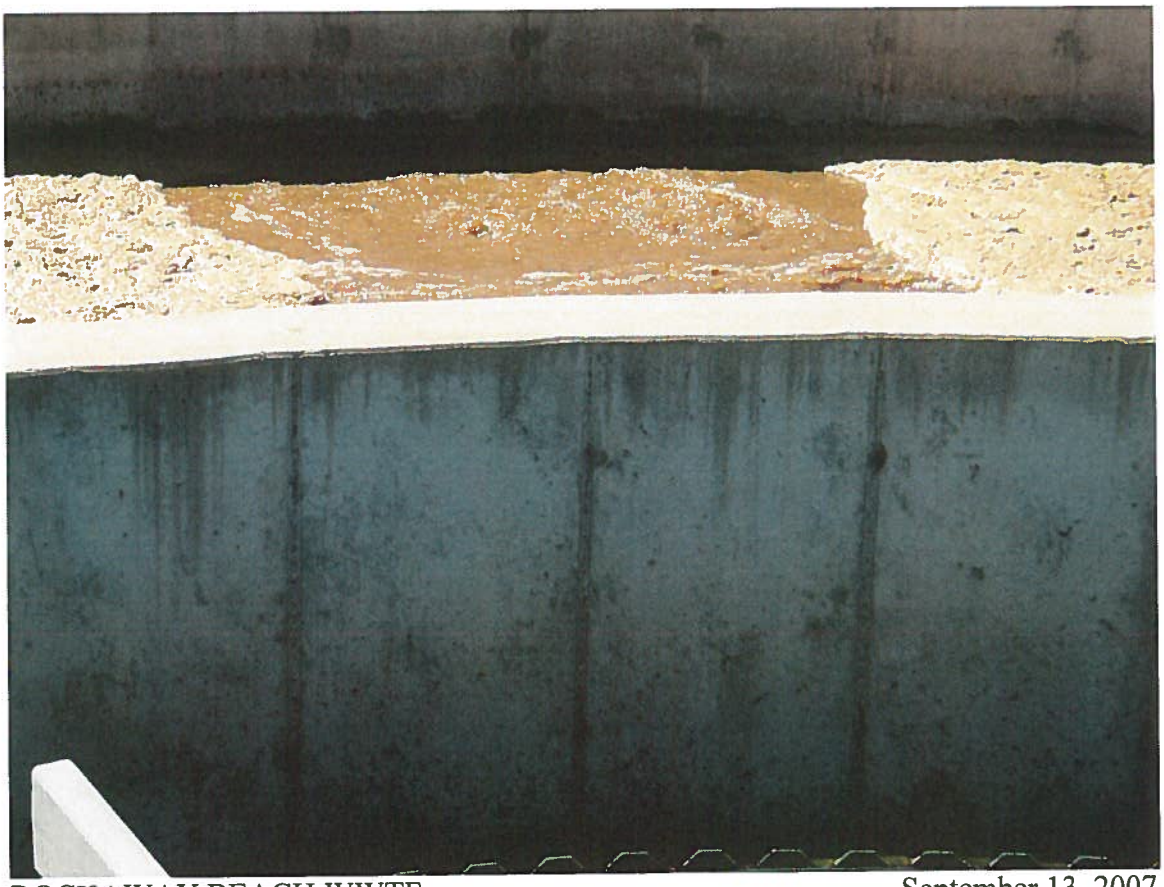
ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 15 This photo was taken looking northwest from the headworks structure looking at the west aeration basin. Note the large boil type aeration pattern. A fine bubble pattern would add more air. The building at the upper center is the laboratory/office. Located at the right edge of the photo is the raw sewage pump building.



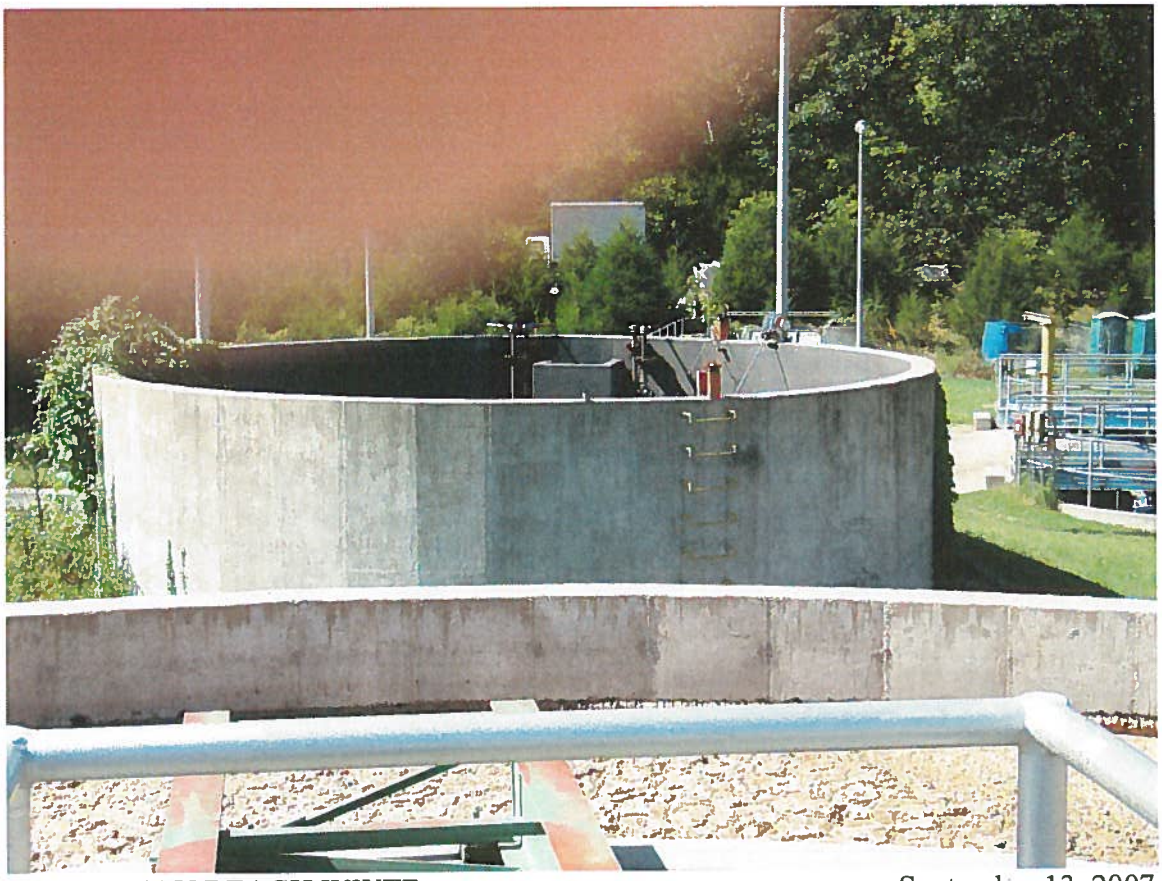
ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 16 This photo was taken looking down at the surface of the final clarifier. Floating surface scum is visible.



ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 17 This photo was taken looking west at the west aeration basin. The photo was taken from the final clarifier bridge. The aeration bubble was large indicating coarse bubble diffusion resulting in poor oxygen transfer.



ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 18 This photo was taken looking northwest from the west final clarifier access bridge. The upper center of the photo shows the sludge storage tank. This tank has not been used since the new plant was constructed.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 19 This photo was taken looking northwest from the west final clarifier access bridge. The photo shows the sludge storage tank at the left of the photo. The two final clarifier tanks associated with the old plant are shown at the center right. The plant design intent was to use these clarifiers as gravity thickeners then store the sludge in the sludge storage tank. These tanks are currently used as storage with no regard to sludge thickening.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 20 This photo was taken looking northwest from near the old final clarifier. Some water could be decanted from the clarifier surface.

ROCKAWAY BEACH WWTF September 13, 2007
Rockaway Beach, MO.

Photo no. 21 This photo was taken looking north from near the sand filter building. Located in the foreground are two paved drying beds. Bed drainage would be through the grassy strip in the middle of the bed. The raw sewage pumping building is located in the background. The portable generator shown at the left corner of the pump building is not hooked to anything and is not ready to be used.